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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,320	09/25/2003	Kazuhiro Nishiyama	OGOH : 026A	4144
6160	7590	10/31/2005	EXAMINER	
PARKHURST & WENDEL, L.L.P. 1421 PRINCE STREET SUITE 210 ALEXANDRIA, VA 22314-2805			PARKER, KENNETH	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/669,320

Applicant(s)

NISHIYAMA ET AL.

Examiner

Kenneth A. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 51-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51 and 52 is/are rejected.
- 7) ☒ Claim(s) 53,56-61 and 65 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 51-52 are rejected under 35 U.S.C. 102(b) as being anticipated by  
Noguchi 5040875.**

Noguchi discloses regarding 51 a liquid crystal element comprising: a multitude of pixel electrodes which are divided minutely; a liquid crystal to which an electric field is applied by said pixel electrodes; and an inclined structure (having a slit on two sides as Noguchi does creates an incline in the same way as applicant's slit creates an incline) such that an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane (as the structure is the same, the behavior or functional result should be the same).

The reference shows regarding 52 a liquid crystal element according to claim 51, further comprising: an opposite electrode which is disposed in parallel with said pixel electrodes; wherein the liquid crystal is held between said pixel electrode and opposite electrode; and such inclined portion is such that a nonconductive portion is provided in a part of the opposite electrode which is opposite to a gap between at least one pair of adjacent pixel electrodes (the slits 130 are in the opposite electrode over the gap).

***Allowable Subject Matter***

Claim 53, 56-61 and 65 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The reference has gaps which are not wider than the spacing between the pixel electrodes. References that actually used openings for the purpose of creating a slanted field were not found to have the openings in the correct shapes and positions. Lien 5907380 employs insulative material, but not "in" the electrode but rather on the electrode. Song et al 6778244 may show the opening over the gap between adjacent pixels, but it not shown as wider than the gap. Regarding claim 65, the limitation of one side of the pixel opposite the non-conductive portion, the other opposite the opposite electrode was not found or suggested by the prior art.

***Response to Arguments***

Applicant's arguments filed have been fully considered but they are not persuasive. Applicant argues that structures are different, but only actually identifies the difference of the opening overlapping the pixel on one side. As the claimed function

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is "such that an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane", the presence of incline between the pixel is present regardless of the overlap (see figure 14- the tilt of molecules between the electrodes should still be there even if the hole is made smaller, so the inherency argument is strong. Additionally, the entire claimed structure is shown, and only the function is missing. Even further, numerous prior art references currently of record show structures which slant the field between the electrodes, for example Lien 5907380 and Liu 6097464 and Kim 6100953. Even pixels without openings seem to have slanted fields there, for example, see Koma 6204905 figure 2.

### ***Conclusion***

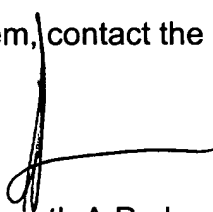
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A. Parker whose telephone number is 571-272-2298. The examiner can normally be reached on M-F 10:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth A Parker  
Primary Examiner  
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